Attorney's Docket No.: 10973-106001 / K43-Applicant: Yoshinao Daicho et al. 157733M/KIK

Serial No.: 10/657,346

: September 8, 2003 Filed

Page : 2 of 5

## Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

## **Listing of Claims:**

1. Currently amended) A vehicle headlamp apparatus comprising: a headlamp for illuminating ahead of a vehicle; image capture means for capturing an image ahead of the vehicle; road terminal end determining means for determining a terminal end of a road ahead of the vehicle from the image captured by the image capture means; and

light distribution control means for varying a light distribution of the head lamp so as to illuminate an area ahead of the vehicle about as far as a location which is determined to be the terminal end of the road by the road terminal end determining means.

(Original) A vehicle headlamp apparatus as set forth in Claim 1, further 2. comprising leading vehicle/oncoming vehicle recognition means for recognizing a leading vehicle or an oncoming vehicle from the image captured by the image capture means,

wherein the light distribution is varied to be directed downward when the leading vehicle/oncoming vehicle recognition means recognizes a leading vehicle or an oncoming vehicle.

- (Original) A vehicle headlamp apparatus as set forth in Claim 1, wherein the 3. variation of the light distribution is implemented gradually.
- (Original) A vehicle headlamp apparatus as set forth in Claim 2, wherein the 4. variation of the light distribution is implemented gradually.

Attorney's Docket No.: 10973-106001 / K43-Applicant: Yoshinao Daicho et al. 157733M/KIK

Serial No.: 10/657,346

: September 8, 2003 Filed

: 3 of 5 Page

(Original) A vehicle headlamp apparatus as set forth in Claim 2, wherein an 5. optical axis of the headlamp is swiveled according to a traveling path or road which is estimated from a steered angle of a steering wheel or the image capture means while the cut-off line remains raised.

- (Original) A vehicle headlamp apparatus as set forth in Claim 1, wherein light 6. distribution control means includes a driving means which controls a vertical movement of a cutoff line of the headlamp.
- (Original) A vehicle headlamp apparatus as set forth in Claim 6, wherein the cut-7. off line is controlled separately for a subject vehicle driving lane and an oncoming vehicle driving lane.
- (Original) A vehicle headlamp apparatus as set forth in Claim 1, wherein a center 8. axis of the image capture means is disposed to become parallel with an optical axis of the headlamp.
- (Original) A vehicle headlamp apparatus as set forth in Claim 7, wherein the 9. center axis of the image capture means is disposed at the same height as that of the optical axis of the headlamp.
- 10. (Original) A vehicle headlamp apparatus as set forth in Claim 1, wherein recognition of the terminal end of the road is implemented based on a white line of the road.
- (Original) A vehicle headlamp apparatus as set forth in Claim 1, wherein 11. recognition of the terminal end of the road is implemented based on a structure indicating a road boundary.